



City of Bloomington

Utilities Department

Frequently Asked Questions about Fats, Oils and Grease (FOG)

Where does FOG come from?

Does your facility cook meat? Serve soups, sauces, or salad dressings? Use butter, margarine, or oil in food preparation? Fats, oils and grease (FOG) are abundant in and on the foods we eat. When foods are prepared, oils and greases are released from of foods or are added as ingredients or non-stick remedies. The FOG ends up on cookware, dishware, kitchen equipment and even floors and floor-mats, all of which must be washed. When kitchen equipment and wares are cleaned, the FOG is washed off and enters the plumbing system. Shortly after this grease enters the drain, it begins to cool and separate from the dishwater. The separated FOG accumulates in private drains, sewer pipes, and sewer lift-stations. In time, this residue builds up, restricting and blocking sewer pipes, causing sewage backups and overflows, and creating headaches for the wastewater treatment plant. The effect is no different on the food service establishment's (FSE) plumbing system. It is no coincidence that plumbing companies are frequently called to restaurants and other food service establishments to un-clog blocked lines.

Why is FOG a Problem?

FOG can create a variety of problems, including sewer capacity reduction, increased maintenance costs, shortened infrastructure lifespan, blockages, backups, overflows, fines, facility closures, vermin, treatment plant upsets, environmental damage, odor, human health hazards, and a variety of other issues.

FOG has a negative impact on wastewater collection and treatment systems. Most wastewater sewer system blockages are related to FOG. These blockages can be serious by causing sewage spills, manhole overflows, or sewage backups in homes and businesses.

Large amounts of FOG in wastewater cause trouble in the collection system pipes. It decreases pipe capacity and, therefore, requires that piping systems be cleaned more often and/or some piping be replaced sooner than otherwise expected.

FOG also hampers effective treatment at the wastewater treatment plant. In a liquefied form, FOG may not appear harmful. But, as the liquid cools, the grease congeals and creates thick grease mats on the surface of settling tanks, digesters, and other treatment structures at the wastewater treatment plant. FOG problems at the plant decrease treatment efficiency, increase operating costs, and can potentially cause interference and pass-through events.

Problems caused by wastes from restaurants and other grease-producing establishments have served as the basis for ordinances and regulations governing the discharge of FOG to the sanitary sewer system. Discharge of these types of waste has forced CBU to require the installation of onsite wastewater pretreatment devices, commonly known as grease interceptors. The local requirements governing FOG management at Food Service Establishments (FSEs) can be found the Bloomington Municipal Code (BMC), Chapter 10.17.

What is a grease interceptor and how does it work?

A grease interceptor is typically a concrete vault with a minimum capacity of 750 gallons. It is built into the wastewater piping and located below ground outside of the food service establishment building. The capacity of the interceptor provides adequate hydraulic retention time so that the suspended FOG in the wastewater has time to congeal and rise to the surface. The vault includes a minimum of two compartments, and flow between each compartment is through a 90° fitting designed for grease retention. Periodically, a service contractor will pump the accumulated grease and other food waste out of the interceptor to maintain its removal efficiency and prevent FOG from reaching the sewer.

What is a grease trap and how does it work?

A trap is a small reservoir built into the wastewater piping a short distance from the grease producing area. Baffles in the reservoir retain the wastewater long enough for the grease to congeal and rise to the surface. These small devices need to be cleaned frequently, daily, weekly, or monthly, and this duty is typically performed by restaurant staff. Some plumbing and septic hauling companies offer grease trap cleaning services.

Do I need a grease interceptor or trap?

YES! Facilities that prepare and serve food produce FOG and must install grease removal devices. All new FSEs and remodeling FSEs must install an approved grease interceptor. Grease interceptors are the preferred grease removal device of CBU for a number of reasons. They are larger, providing longer hydraulic retention time, which facilitates the separation of FOG. Grease interceptors are located in outdoor areas and are less likely to create offensive odors and other undesirable effects inside the restaurant. In addition, interceptors typically only need maintenance every 30 to 90 days. This service is performed by a contractor, eliminating the need to constantly battle with staff to ensure grease traps are being cleaned.

Indoor grease traps can be effective in certain applications, but must be maintained frequently and can't be connected to certain common kitchen fixtures and equipment. For example, grease traps cannot be connected to food grinders or dishwashing machines. CBU often finds grease traps aren't sized appropriately, aren't cleaned out as frequently as needed and aren't very effective at removing FOG.

Can you recommend a maintenance schedule?

All grease interceptors must be cleaned at least every 90 days, or according to the 25% Rule. Some establishments will find it necessary to clean their interceptors once a month. Grease traps must be cleaned at least monthly, however most need to be cleaned weekly or daily. If an establishment must clean a grease trap often, the owner should consider installing an interceptor.

The 25% Rule is the standard for determining an acceptable level of waste accumulation in a grease interceptor or trap. This means when the interceptor or trap has accumulated waste, both floatable grease and settleable food solids, accounting for 25% of its wetted depth, as measured from the static water line to the tank bottom, the device needs to be cleaned.

What if I don't have a grease trap?

Are you a non-residential facility that prepares and serves food? You must install a grease removal device! It surprises many food establishment owners and operators how much FOG they actually produce and discharge to the sewer system. Many facilities experience frequent plumbing problems and don't realize grease removal devices can help eliminate their problems. Don't wait until there is a sewage backup in your kitchen or a FOG problem in the sewer that is traced to your facility. Get in compliance with the CBU grease waste management requirements.

How can I get in compliance?

Contact CBU! We will work with your facility to ensure that you have the proper equipment and are using it efficiently. You may have a trap or interceptor that isn't installed, sized or maintained properly. There may already be a grease interceptor or trap at your facility, but you never knew it was there. You may be wasting hundreds or even thousands of dollars a year on unnecessary plumbing costs and poor device maintenance. There are some simple steps that can be taken in your facility that could significantly reduce or eliminate FOG from entering your plumbing (see FOG Best Management Practices (BMPs)).

What are the criteria for inspecting grease interceptors and traps?

All units are inspected for compliance with the 25% Rule and design requirements. All grease interceptors and traps must be pre-approved by CBU prior to installation and must allow access for inspection and maintenance. For more information on proper maintenance procedures, please see the links below.

In addition to inspecting the unit, CBU inspects the FSE's kitchen practices to determine compliance with other Best Management Practices (BMPs) requirements. FSEs are required to document all cleanings on a log sheet, and if a hauler is used, a copy of the receipt must be submitted to CBU. FSEs must also post "No FOG" posters in their kitchen to remind employees that FOG cannot be poured into the drain. Other BMPs include training kitchen staff to scrape all food waste directly into the trash and to "dry wipe" all pots, pans, and plates with a paper towel prior to dishwashing.

The Bottom Line

Many businesses find that taking steps to prevent FOG materials from entering the sewer system saves money. Keeping FOG out of your drains will reduce the likelihood of grease related plumbing problems. FOG can often be recycled, reducing garbage costs.

Establishments that fail to comply with CBU's grease waste management policies may be required to install additional grease-removal equipment, be issued fines, or even have their utility services terminated.